

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for generating a luminosity compensated image, the method comprising:

defining a luminosity texture having a plurality of luminosity texels;

converting pixel data for an underlying image to an image texture having a plurality of image texels;

blending the image texture onto a target surface having a shape; and

blending the luminosity texture onto the target surface, thereby generating luminosity compensated pixel data for the image; and

providing a user interface enabling a user to modify the shape of the target surface,

wherein defining the luminosity texture includes automatically updating one or more of the luminosity texels in response to a user modification of the shape of the target surface.

2. (Original) The method of claim 1, wherein the target surface comprises a polygon having a plurality of vertices, at least one of the vertices being associated with one of the image texels of the image texture.

3. (Original) The method of claim 1, further comprising:
providing the luminosity compensated pixel data to a display device.

4. (Original) The method of claim 3, wherein providing the luminosity compensated pixel data to the display device includes:

storing the luminosity compensated pixel data in a frame buffer; and

subsequently scanning out the frame buffer data, thereby providing data to the display device.

5. (Original) The method of claim 1, wherein each luminosity texel includes a scaling factor.

6. (Original) The method of claim 5, wherein blending the luminosity texture onto the target surface includes:

selecting one of the luminosity texels; and
multiplying a pixel value from the target surface by the scaling factor of the selected luminosity texel.

7. (Original) The method of claim 5, wherein the scaling factors define a luminosity gradient to be applied across an area of the image.

8-9. (Canceled)

10. (Currently Amended) The method of claim 19, wherein automatically updating one or more of the luminosity texels includes computing a luminosity scaling factor based on a distance to a location on the target surface that maps to the texel.

11. (Original) The method of claim 10, wherein the distance is determined from a depth coordinate of the location on the target surface.

12. (Original) The method of claim 1, wherein the luminosity texture includes a low luminosity region.

13. (Original) The method of claim 12, wherein the low luminosity region corresponds to an overlap region in an image to be displayed using a plurality of display devices configured to display overlapping image elements.

14. (Original) The method of claim 1, wherein the luminosity texture includes dark texels for forming a visible pattern superimposed on the underlying image.

15. (Original) The method of claim 14, wherein the visible pattern corresponds to a message readable by a user.

16. (Original) The method of claim 1, further comprising:
providing a user interface enabling a user to define the luminosity texture.

17. (Original) The method of claim 16, wherein the user interface further enables the user to save the luminosity texture to a file.

18. (Original) The method of claim 17, wherein the user interface further enables the user to select a previously saved luminosity texture file to be applied.

19. (Original) The method of claim 16, wherein the user interface further enables the user to modify the luminosity texture.

20. (Original) The method of claim 1, wherein each luminosity texel includes an independent scaling factor for each of a plurality of color components.

21. (Original) The method of claim 20, wherein the plurality of color components includes a red component, a green component, and a blue component.

22. (Currently Amended) A graphics processing system comprising:
a texture generation module configured to convert pixel data for an underlying image to an image texture having a plurality of image texels;
a texture memory configured to store the underlying image texture and a luminosity texture having a plurality of luminosity texels; and

a multistage texture blending module configured to blend each of the image texture and the luminosity texture onto a target surface having a shape, thereby generating luminosity-compensated pixel data for an image;

a user interface module configured to receive a user instruction modifying the shape of the target surface; and

a luminosity compensation module configured to automatically update the luminosity texture stored in the texture memory in response to the user instruction modifying the shape of the target surface.

23. (Original) The graphics processing system of claim 22, wherein the target surface comprises a polygon having a plurality of vertices, at least one of the vertices being associated with a texture coordinate of the image texture.

24. (Original) The graphics processing system of claim 22, further comprising a frame buffer configured to store the luminosity-compensated pixel data.

25. (Original) The graphics processing system of claim 22, further comprising scanout control logic configured to provide the luminosity-compensated pixel data to a display device.

26. (Original) The graphics processing system of claim 22, wherein each luminosity texel includes a scaling factor.

27-28. (Canceled)

29. (Currently Amended) The graphics processing system of claim ~~22~~28, wherein the ~~luminosity compensation~~ luminosity compensation module is further configured to compute an updated value for a texel of the luminosity texture based on a distance to a location on the target surface that maps to the texel.

30. (Original) The graphics processing system of claim 29, wherein the distance is determined from a depth coordinate of the location on the target surface.

31. (Original) The graphics processing system of claim 22, wherein the luminosity texture includes a low luminosity region.

32. (Original) The graphics processing system of claim 31, wherein the low luminosity region corresponds to an overlap region in an image to be displayed using a plurality of display devices configured to display overlapping image elements.

33. (Original) The graphics processing system of claim 22, wherein the luminosity texture includes darkened texels forming a visible pattern.

34. (Original) The graphics processing system of claim 33, wherein the pattern corresponds to a message readable by a user.

35. (Original) The graphics processing system of claim 22, further comprising a user interface module configured to enable a user to define the luminosity texture.

36. (Currently Amended) A computer program product comprising:
a computer readable medium encoded with program code, the program code including:

program code for defining a luminosity texture that includes a scaling factor for each of a plurality of luminosity texels;

program code for converting pixel color values of an underlying image to an image texture having a plurality of image texels;

program code for blending the image texture onto a surface having a shape; and

program code for blending the luminosity texture onto the target surface, thereby generating luminosity compensated pixel data for the image;

program code for providing a user interface enabling a user to modify the shape of the target surface; and
program code for updating the scaling factor for each luminosity texel based on the modified shape of the target surface.

37. (Original) The computer program product of claim 36, wherein the computer readable medium comprises a magnetic storage medium encoded with the program code.

38. (Original) The computer program product of claim 36, wherein the computer readable medium comprises an optical storage medium encoded with the program code.

39. (Original) The computer program product of claim 36, wherein the computer readable medium comprises a carrier signal encoded with the program code and adapted for transmission via a network.

40. (Original) The computer program product of claim 36, wherein the program code further includes program code for providing a user interface enabling a user to define the luminosity texture.

41-42. (Canceled)